

REMARKS

The Office Action first indicates that the drawings are objected to because Figure 1 is missing the label "PRIOR ART." In response, Applicant has amended Figure 1, without adding new matter, to include the "PRIOR ART" label.

The Office Action also indicates that the claims filed in the Preliminary Amendment incorrectly cancelled claims 1-12 and added claims 13-25. The claims were accidentally mis-numbered as claims 13-25 when they should have been numbered as claims 12-24. Therefore, without adding new matter, Applicant has renumbered the pending claims such that they now properly appear as claims 12-24. Additionally, their dependencies have been amended accordingly.

The Office Action next indicates that claim 22 (formerly mis-numbered claim 23) is objected to for a minor informality, and that claims 14 and 18 (formerly mis-numbered claims 15 and 19) stand rejected under §112 ¶2 due to antecedent basis issues. In response and without adding new matter, Applicant has amended claims 14, 18, and 22 to address these concerns.

In light of the foregoing amendments and remarks, Applicant requests the withdrawal of the objections to the claims and drawings, and of the §112 rejections to claims 14 and 18.

Turning now to the remaining rejections, claim 12 (i.e., formerly mis-numbered claim 13) is directed to node for an optical communication network. The node comprises at least one switching unit and a plurality of optical interfaces to connect to a Wavelength Division Multiplex (WDM) transmission line. Each optical interface comprises a demultiplexer to disassemble an incoming multiplex signal arriving from the WDM transmission line into a plurality of input channels, and a multiplexer to assemble a plurality of output channels from a corresponding plurality of output ports of the switching unit into an outgoing multiplex signal. Each input channel is supplied to an input port of the switching unit. The node also comprises at least one receiver to extract an information signal received from the optical communication network, and

an input branching mechanism disposed on the path of the input channels between each optical interface and the switching unit. The input branching mechanism selectively supplies an input channel to the switching unit and to the receiver.

The Office Action indicates that claim 12 stands rejected as being obvious over Graves (U.S. Pat. App. Pub. No. 2002/0064336). However, Graves does not render claim 12 obvious because it does not teach or suggest, "an input branching mechanism disposed on the path of the input channels between each optical interface and the switching unit to selectively supply an input channel to the switching unit and to the receiver," as claimed.

Graves discloses a protection switching arrangement for an optical switching system. As seen in Figure 3, which is cited to support the rejection, the system of Graves includes an optical switch (12), a demultiplexer (16), and a protection switch (56) between the optical switch and the demultiplexer. *Graves*, p. 3, ¶¶[0035-0036]; Figure 3. The Office Action equates the protection switch (56) to the claimed input branching mechanism; however, the two are not the same thing. The claimed input branching mechanism selectively supplies an input channel to the switching unit and to the receiver. The cited protection switch of Graves, in contrast, functions without performing any "selection" whatsoever. That is, Graves the protection switch always forwards all traffic to the optical switch unless a fault occurs. According to Graves,

A protection switch controller 50 activates the protection switches in response to measurements indicative of fault conditions.

In operation, the protection switch controller 50, responsive to conditions in the switch indicative of a fault condition, activates the appropriate protection switches....A fault in the switch core, for example optical switch matrix 12b would cause activation of all protection switches 56 and 58 to switch the traffic from 12b representing the entire switch traffic at that lambda to the spare switch matrix 12m+1.

Graves, p. 3, ¶¶[0035-0036] (emphasis added).

These passages evidence the fact that any input channel that is sent toward the DROP line (36) towards a receiver is not selectively supplied to the receiver by the protection switch,

as claimed in claim 12. Rather, the input channel is sent toward the DROP line only in response to a fault condition. Fault conditions occur, if at all, randomly. Therefore, switching to provide the input channels to the DROP line in Graves also necessarily occurs randomly. They are not selectively provided to a receiver as is claimed in claim 12. Moreover, all of the traffic in Graves is switched from one signal plane to another. Further, before an input channel is sent towards the DROP line, it goes through A Wavelength Converting Switch (14) – not the receiver 12 claimed.

Therefore, the protection switch of Graves has nothing to do with the claimed input branching mechanism. It does not selectively supply an input channel to the switching unit and to the receiver because it always forwards all traffic to the optical switch (12). Because Graves does not teach or suggest every limitation of claim 12, claim 12 and its dependent claims are non-obvious over Graves.

Claim 16 (formerly mis-numbered claim 17) is directed to a node for an optical communication network, and also stands rejected as being obvious over Graves. However, claim 16 recites, “an output branching mechanism disposed on the path of the output channels between each optical interface and the switching unit to selectively supply an output channel to the interface from the switching unit and from the transmitter.” The Office Action indicates that the protection switch (58) shown in Figure 3 is the claimed output branching mechanism; however, Graves does not support such a theory.

As evidenced in the above-cited passage of Graves, the protection switch controller (50) activates the protection switch 58 (as well as the protection switch 56) to switch the traffic from the optical switch to a spare switch matrix. Therefore, the protection switch 58 simply switches all traffic from one switching plane to another. It does not selectively supply an output channel to the interface from the switching unit and from the transmitter. Further, it is triggered at random times for randomly occurring failure events, not “selectively” as claimed. Therefore,

Graves also fails to teach or suggest every limitation of claim 17. As such, claim 17 and its dependent claims are non-obvious over Graves.

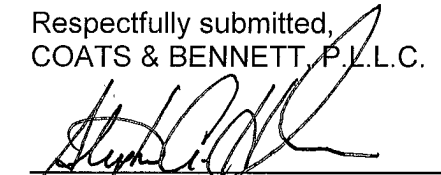
Finally, claim 21 (formerly mis-numbered claim 22) is directed to a node for an optical communication network and stands rejected as being obvious over Graves in view of Strasser (U.S. Pat. App. Pub. No. 2009/0142060). However, claim 21 recites, "a branching mechanism disposed between each optical interface and the switching unit to selectively supply an output channel to the interface from the switching unit and from the transmitter and to selectively supply an input channel to the switching unit and to the receiver." For reasons similar to those stated above, Graves does not teach or suggest this limitation of claim 21. The secondary reference - Strasser - also fails to teach or suggest this limitation and the Office Action does not allege that it does.

Strasser, which discloses a coupling device for transferring Wavelength Division Multiplexed (WDM) signals between different WDM optical communications systems, is cited for its alleged disclosure of a transponder. Whatever Strasser discloses, however, it does not teach or suggest the claimed branching mechanism. Therefore, Strasser does not remedy Graves. And since both cited references fail to teach or suggest the claimed branching mechanism, the combination of the references necessarily fails to teach or suggest the claimed branching mechanism. Accordingly, claim 21 and its dependent claims are non-obvious over the cited references.

Finally, the Office Action notes that the specification is not arranged according to a preferred format using the accepted headings (i.e., TITLE OF THE INVENTION, CROSS-REFERENCE TO RELATED APPLICATIONS, etc.). Applicant thanks the Examiner for the suggestion, but respectfully submits that the suggested format is not required for National Stage applications.

In light of the foregoing amendments and remarks, Applicant submits that all pending claims are in condition for allowance. Accordingly, Applicant respectfully requests that the Examiner issue a Notice of Allowance.

Respectfully submitted,
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